

Abstract of the Disclosure

An objective lens for a plurality of types of optical discs is provided with a diffracting structure on at least one surface thereof. The surface includes an inner area including the optical axis and an outer area. The outer area includes at least one special annular zone. Part of a first beam (having a first wavelength for a first optical disc of lower data density) passed through the zone will be substantially in antiphase with part of the first beam passed through the inner area. The convergence angle θ of part of the first beam incident on the outermost part of the inner area measured after emerging from the objective lens and a design numerical aperture NA_{ref} of the first optical disc satisfy:

$$1.0 < \sin\theta/NA_{ref} < 1.1.$$

The effective NA of the objective lens for the first beam is substantially equal to the design numerical aperture NA_{ref} .